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| APPLICATION NO.                 | FILING DATE   | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------------|---------------|----------------------|---------------------|------------------|
| 10/772,436                      | 02/06/2004    | Koichi Shibata       | 018987-055          | 6119             |
| 21839                           | 7590          | 07/29/2009           |                     |                  |
| BUCHANAN, INGERSOLL & ROONEY PC |               |                      | EXAMINER            |                  |
| POST OFFICE BOX 1404            |               |                      | MILIA, MARK R       |                  |
| ALEXANDRIA, VA 22313-1404       |               |                      | ART UNIT            | PAPER NUMBER     |
|                                 |               |                      | 2625                |                  |
|                                 |               |                      |                     |                  |
| NOTIFICATION DATE               | DELIVERY MODE |                      |                     |                  |
| 07/29/2009                      | ELECTRONIC    |                      |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

|                              |                                      |                                       |
|------------------------------|--------------------------------------|---------------------------------------|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/772,436 | <b>Applicant(s)</b><br>SHIBATA ET AL. |
|                              | <b>Examiner</b><br>Mark R. Milia     | <b>Art Unit</b><br>2625               |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

1) Responsive to communication(s) filed on 22 May 2009.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

4) Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-19 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/22/09 has been entered. Currently, claims 1-19 are pending.

***Response to Arguments***

2. Applicant's arguments filed 5/22/09 have been fully considered but they are not persuasive.

Applicant asserts that Mihira (US 2004/0070782) fails to disclose that the second control program is configured to pass the received processing request to the first control program and is silent on the features that a function is publicly released in advance and that a request relating to image processing is received from an external source using the function. The examiner respectfully disagrees as Mihira does disclose such features. Particularly, Mihira states that WEB service function (WSF) 27 has an application program interface by which, through a function previously defined,

processing requests can be received from the WEB page application **25** and SOAP communication application **26** (paragraph 61). When receiving processing requests from the WEB page application **25** and SOAP communication application **26**, the WSF **27** selects a SF **28** according to the request (paragraph 62). Mihira further states that a host computer can request document printing through communication with document management service **123** which is SF **28** (paragraphs 89-91). Mihira even further states that control service layer **9** interprets processing requests sent from the application layer **5**, of which WEB page application **25**, SOAP communication application **26**, WSF **27**, and SFs **28** are a part of (paragraph 63). Thus, the second control program (any of WEB page application **25**, SOAP communication application **26**, WSF **27**, and SFs **28**) passes received processing requests to the first control program (any of control service layer **9**) as control service layer **9** is responsible for management and performance of the hardware resources. Mihira also states that a network apparatus **100**, such as a host computer receives a list of stored documents and the document Ids for those documents stored in the composite machine **1** (paragraph 91). Therefore the API **51** is publicly released prior to the host computer requesting document printing and thereby allows document printing requests via document management service **123**.

***Claim Rejections - 35 USC § 102***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-19 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent Application Publication No. 2004/0070782 to Mihira.

Claims 1, 7, 13, and 18 set forth three different hierarchical architectures for the hardware resource, a first control program, a second control program, and an application program. However, Mihira discloses only one hierarchical architecture but Mihira does state that variations and modifications can be made without departing from the scope of the invention (paragraph 212) and it is common in the art to rearrange processing parts without changing the overall function of the system. This is the case with the instant invention in that Mihira discloses a hierarchical architecture that serves the same purpose and functions the same as the hierarchical architectures of claims 1, 7, and 13.

Regarding claim 1, Mihira discloses an image processing apparatus comprising: a hardware resource that includes at least one of an image forming unit, a read unit, and a display unit (see Fig. 1 and paragraph 58), a first control program (see Fig. 1 and paragraph 63-64, control service layer **9**), a second control program (see Fig. 1 and paragraph 61-62, applications **25-27**), and an application program (see Fig. 1 and paragraph 60, applications **21-24**), wherein the hardware resource and the programs are arranged in such a hierarchical architecture that the first control program is superordinate to the hardware resource, and the application program and the second control program are superordinate to the first control program (see Fig. 1), the first control program includes a first API (application program interface) for receiving, with

use of a predefined function, a first request relating to image processing from the second control program and a second request relating to image processing from the application program, and controls, on receiving either of the first and second requests, the hardware resource to perform image processing based on the received request (see paragraphs 59-63, 65, 71, and 89-91, a host computer can request document printing through communication with document management service **123** which is SF **28** and the control service layer **9** interprets processing requests sent from the application layer **5**, of which WEB page application **25**, SOAP communication application **26**, WSF **27**, and SFs **28** are a part of, thus, the second control program (any of WEB page application **25**, SOAP communication application **26**, WSF **27**, and SFs **28**) passes received processing requests to the first control program (any of control service layer **9**) as control service layer **9** is responsible for management and performance of the hardware resources), and the second control program includes a second API for receiving, with use of a function publicly released in advance, a third request relating to image processing from an external source, converts the received third request to a command supported by the first API, and passes the command as the first request to the first control program (see paragraphs 60-61, 66-67, 85, and 89-91, the API is publicly released because a network apparatus, such as a host computer receives a list of stored documents and can transmit XML data using a SOAP protocol to perform printing of a stored document, therefore the API **51** is publicly released prior to the host computer requesting document printing and thereby allows document printing requests via document management service **123**).

Regarding claim 7, Mihira discloses an image processing apparatus comprising: a hardware resource that includes at least one of an image forming unit, a read unit, and a display unit (see Fig. 1 and paragraph 58), a first control program (see Fig. 1 and paragraph 63-64, control service layer **9**), a second control program (see Fig. 1 and paragraph 61-62, applications **25-27**), and an application program (see Fig. 1 and paragraph 60, applications **21-24**), wherein the hardware resource and the programs are arranged in a hierarchical architecture in the stated order (see Fig. 1), the first control program includes a first API for receiving, with use of a predefined function, a first request relating to image processing from the second control program, and controls the hardware resource to perform image processing based on the received first request (see paragraphs 59-63, 65, and 71), and the second control program includes a second API for receiving, with use of a function publicly released in advance, a second request relating to image processing from an external source and a third request relating to image processing from the application program, converts, on receiving either of the second and third requests, the received request to a command supported by the first API, and passes the command as the first request to the first control program (see paragraphs 60-61, 66-67, 85, and 89-91, the API is publicly released because a network apparatus, such as a host computer receives a list of stored documents and can transmit XML data using a SOAP protocol to perform printing of a stored document, therefore the API **51** is publicly released prior to the host computer requesting document printing and thereby allows document printing requests via document management service **123**).

Regarding claim 13, Mihira discloses an image processing apparatus comprising: a hardware resource that includes at least one of an image forming unit, a read unit, and a display unit (see Fig. 1 and paragraph 58), a first control program (see Fig. 1 and paragraph 59), a second control program (see Fig. 1 and paragraph 61), and Fig. 1 and paragraph 63-64, control service layer **9**), a second control program (see Fig. 1 and paragraph 61-62, applications **25-27**), and an application program (see Fig. 1 and paragraph 60, applications **21-24**), wherein the first control program is arranged between the hardware resource and the application program and the second control program is arranged superordinate to the application program in a hierarchical architecture (see Fig. 1), the first control program includes a first API for receiving, with use of a predefined function, a first request relating to image processing from the second control program and a second request relating to image processing from the application program, and controls, on receiving either of the first and second requests, the hardware resource to perform image processing based on the received request (see paragraphs 59-63, 65, and 71), the second control program includes a second API for receiving, with use of a function publicly released in advance, a third request relating to image processing from an external source, converts the received third request to a command supported by the first API, and passes the command to an appropriate one of the first control program and the application program depending on the requested processing, the command passed to the first control program serving as the first request (see paragraphs 60-61, 66-67, 85, and 89-91, the API is publicly released because a network apparatus, such as a host computer receives a list of stored documents and

can transmit XML data using a SOAP protocol to perform printing of a stored document, therefore the API **51** is publicly released prior to the host computer requesting document printing and thereby allows document printing requests via document management service **123**), and on receiving the command from the second control program, the application program passes to the first control program, a request for performing the processing based on the received command, the request passed to the first control program serving as the second request (see paragraphs 58-63, 65-67, 71, 85, and 89-91, a host computer can request document printing through communication with document management service **123** which is SF **28** and the control service layer **9** interprets processing requests sent from the application layer **5**, of which WEB page application **25**, SOAP communication application **26**, WSF **27**, and SFs **28** are a part of, thus, the second control program (any of WEB page application **25**, SOAP communication application **26**, WSF **27**, and SFs **28**) passes received processing requests to the first control program (any of control service layer **9**) as control service layer **9** is responsible for management and performance of the hardware resources).

Regarding claim 18, Mihira discloses an image processing apparatus comprising: a hardware resource that includes at least one of an image forming unit, a read unit, and a display unit (see Fig. 1 and paragraph 58), a first control program (see Fig. 1 and paragraph 63-64, control service layer **9**), a second control program (see Fig. 1 and paragraph 61-62, applications **25-27**), and one or more application programs (see Fig. 1 and paragraph 60, applications **21-24**), wherein the hardware resource and the programs are arranged in such a hierarchical architecture that the first control program

is superordinate to the hardware resource, and the application program and the second control program are superordinate to the first control program (see Fig. 1), the first control program includes a first API (application program interface) for receiving a first request relating to image processing from the second control program and a second request relating to image processing from the one or more application programs, and controls, on receiving either of the first and second requests, the hardware resource to perform image processing based on the received request (see paragraphs 59-63, 65, and 71), and the second control program includes a second API for receiving, with use of a function publicly released in advance, a third request relating to image processing from an external source, converts the received third request to a command supported by the first API, and passes the command as the first request to the first control program, wherein the publicly released function is not supported by any of the one or more application programs (see paragraphs 60-61, 66-67, 85, and 89-91, the API is publicly released because a network apparatus, such as a host computer receives a list of stored documents and can transmit XML data using a SOAP protocol to perform printing of a stored document, therefore the API 51 is publicly released prior to the host computer requesting document printing and thereby allows document printing requests via document management service 123).

Regarding claim 2, Mihira further discloses wherein the first control program passes the received first request to the application program if the first request is directed to the application program (see paragraphs 58-60 and 63).

Regarding claims 3 and 14, Mihira further discloses wherein the third request is data expressed in an XML (see paragraph 90).

Regarding claims 4, 10, and 15, Mihira further discloses wherein the second control program further includes: a first converting unit for extracting predetermined information from the received XML data (see paragraphs 66-67 and 90) and a second converting unit for converting the extracted information to the command supported by the first API (see paragraphs 97-99 and 102-103).

Regarding claims 5, 11, and 16, Mihira further discloses wherein the hardware resource includes the image forming unit (see Fig. 1 11), the requests relate to execution of a print job (see paragraphs 89-90), and on receiving a request relating to execution of the print job, the first control program controls the image forming unit to perform the print job (see paragraphs 97-99 and 102-103).

Regarding claims 6, 12, and 17, Mihira further discloses wherein the hardware resource includes the read unit (see Fig. 1 12), the requests relate to execution of a scan job, and on receiving a request relating to execution of the scan job, the first control program controls the read unit to perform the scan job (see paragraphs 58-60, 63, 65, 69, 71, and 80).

Regarding claim 8, Mihira further discloses wherein the second control program passes the received second request to the application program if the second request is directed to the application program (see paragraphs 58-60 and 63).

Regarding claim 9, Mihira further discloses wherein the second request is data expressed in an XML (see paragraph 90).

Regarding claim 19, Mihira further discloses wherein the second API is an external API for controlling operations of the hardware resource according to requests received from an external device (see paragraphs 62 and 89-90).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571)272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached at (571) 272-7437. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark R. Milia

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Examiner  
Art Unit 2625

/Mark R. Milia/  
Examiner, Art Unit 2625

/David K Moore/  
Supervisory Patent Examiner, Art Unit 2625